

Notice of Allowability	Application No.	Applicant(s)	
	09/462,127	NAKA, NOBUHIKO	
	Examiner	Art Unit	
	Qi Han	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 06/16/2004.
2. ☒ The allowed claim(s) is/are 17-21,26-28,37 and 38.
3. ☒ The drawings filed on 29 December 1999 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
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DETAILED ACTION

Response to Amendment

1. This communication is responsive to the applicant's amendment dated 06/16/2004. The Applicant(s) amended claims 17, 19 and 26-28, cancelled claims 22-25 and 29-36, and added 37-38 (see pages 2-4).

2. Examiner withdraws the claim rejection under 35 USC 112, because applicant explains the referenced places in the specification for the rejected limitations, and particularly clarifies that the claimed limitation "a first-stage decoding circuit" refers to the functional blocks 22-24 in Fig.2 and the limitation "a second-stage circuit" refers to the functional block 28 in Fig.2.

Allowable Subject Matter

3. Claims 17-21, 26-28 and 37-38 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding independent **claim 17**, the instant application is directed to speech coders for decoding parameters in received frames and reconstructing a speech based on the parameters. The independent claims identify the uniquely distinct features of providing: a first-stage decoding circuit that generates excitation vectors from the transmitted received parameters; a second-stage decoding circuit that performs a speech synthesis, using the excitation vectors, to obtain a reconstructed speech; an adaptive preprocessing filter, located between the first-stage and second-stage circuits, that emphasizes, to a degree, a harmonic component of at least one of

the excitation vectors; and an error frame counter that counts successive error frames that contain a transmission error, the error frame counter operably connected to the adaptive preprocessing filter to decrease the degree of emphasis performed thereby as a count of the successive error frames increases, wherein the error frame counter disables the adaptive preprocessing filter to effect zero emphasis on the at least one of the excitation vectors when the count of the successive error frames reaches a predetermined number. The closest prior art, SALAMI et al. (IEEE Transaction on speech and audio processing, vol. 6, No.2, March 1998, page 116-130), MANO et al. (JP 06-012095), Shoham (US 5,699,485), neither singly nor in combination, specifically disclose nor fairly suggest the above limitation(s).

The prior art of record provided numerous teachings of alternative methods and techniques of speech decoding, including corrupted frame detecting, consecutive error counting, corrupted frame concealing, and replaced parameter smoothing and attenuating. However, the features presented above are not anticipated by, nor made obvious over the prior art of the record.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any response to this action should be mailed to:
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
or faxed to:
(703) 872-9306, (for formal communications intended for entry)
Or:
(703) 872-9306, (for informal or draft communications, and please label
"PROPOSED" or "DRAFT")

Patent Correspondence delivered by hand or delivery services, other than the USPS, should be addressed as follows and brought to U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA, 22202

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qi Han whose telephone numbers is (703) 305-5631. The examiner can normally be reached on Monday through Thursday from 9:00 a.m. to 7:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (703) 305-6954.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at: ebc@uspto.gov. For general information about the PAIR system, see <http://pair-direct.uspto.gov>.

QH/qh
August 31, 2004


RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER